

II. *Part of a Letter from the Reverend Mr Derham to Dr Sloane, giving an account of his observations of the weather for the Year 99.*

Upminster, Jan. 23. 1<sup>699</sup><sub>1700</sub>.

SIR,

Here send you the Tables of my last years observations; together with which I think it convenient to send some few remarks relating thereunto.

I promis'd last year the addition of two Columns to each Month's observations, which are here inserted. The one sheweth the *Flying of the Clouds*, concerning which I desire it may be observed, that I have never set down the Point towards which the Clouds flew; but when they varied from the Winds. In all those vacancies therefore in the Column of Clouds, it is to be supposed, that either there were no Clouds at all appeared, or their motion was not discernible, or that they flew in the same track with the Winds.

Concerning the *Thermometer*, it is necessary that I should tell you, that the graduation of it is by Inch-measure, *viz.* Inches and tenths of Inches. The point of *Freezing* is at about 8°, or at most 8°2 degrees, and consequently 'tis *Cold* at about 9°, and *Temperate* at about 10° degrees. I need not say, that the Degrees above 100 are *Warm* or *Hot*; and those below 80 are *Harder Frosts*. The Degrees of my Thermometer reach to 24°, altho I could never make the Spirits descend with Artificial Freezing, much lower than 5°, neither when expos'd to the heat of a pretty strong Sun, did they ascend above 22°.

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The *Scituation* of my *Thermometer* is against a Northern Wall in the open Air: whereby it is defended against the Heat of the Sun, and so sheweth only the true present Temperature of the Air. 'Tis also guarded against the Beams of the Morning and Evening Sun, when it riseth and setteth on the Northern side of the E. and W. points of the Horizon.

I have thought it unnecessary for the most part, in the Column of *Weather*, to take notice of the Temperature of the Air, whether Hot, Cold, or Moderate, because the Column of the Thermometer sheweth this. Neither also have I said what *Rain* fell, whether much or little, because the Column of Rain sufficiently demonstrateth it. So that it is easy to observe, almost at one view, what Seasons we have had last year, whether Hot, Cold, Temperate, Wet or Dry. I need look no farther back for an instance, than the last Winter-Months, which now, or any time hereafter, we may discover to have been very mild, by the Spirits having been for the most part above 82 Degrees. Yea, many of the days of *November* and *December*, we may find were not much colder than many of the mornings and evenings of the warmer Months. So also for *Wet* and *Dry*, we may find what reason there is for the present great scarcity of Water, which is complained of in many places. For besides what happened in former Months, the two last Months of the Year were much dryer than usual, so that had it not been for the rains of *October*, perhaps a drought had been a General calamity.

I have had frequent confirmations of what I observ'd last year, (*Phil. Transf.* N. 249.) concerning the *Mercury* rising in Foggy weather. The like it doth also in misty weather; as may be seen in divers places of the Table.

I observed last year, that the highest pitch I ever found the Mercury at, was 30.40 inches. But Dec. 22. last, the Weather being misty, and Wind Northerly, it ascended to 30.50 inches, the highest I ever saw it at *Upminster*.

Whether the observations my Register is filled with, will be of any use, to judge of the Fertility or Scarcity, the Healthiness or Diseases, or any other occurrences of the last, or of former or future years, I shall leave to the much better judgments of the learned Members of your Honourable Society, who have been pleased to accept of my past labours of this kind, and by their desires to command my continuance of the same for the future. Whether what I have done may answer your expectations, I am not able to judge. I can only assure you, that it is done with all possible accuracy and fidelity.

I beg pardon for the chasms which you will meet with in some of the months, occasioned by my absence from my observations about necessary affairs. I am

*S I R,*

*Your most Humble Servant,*

**W. Derham.**

*A REGISTER of the Weather, Bearing of the Winds, Flying  
and the Quantity of Rain fallen at Upton*

January.		8, 12, 9.			February.		7, 12, 9.			March.						
Day	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds.	Clouds.	Barom.	Ther.	Rain.	Weather	Winds.	Clouds.	
1	Frost	S E. S. O		29.	77		Fair	S W 1		29.	43	98	Fair			
	Fair	S S E 1			73		Pleasant	W by S 2	S W		53	108	Sleet	N by E 2		
	Snow				43		Day	W by S O			77	83	Snow	N by W 3		
2	Rain						SmallFro.	W S W O	W N W		88	79	Fair			
	Warmer and Rain	S 3			21	0. 63	Hazy	S by W O			91	95	Sleet	N by E 2		
3	Same	S b. E 3		28.	76	0. 29	Rain	S 1			85	100	Snow	N by W 3		
		S 3	S by W		57	0. 37	Rain	S S E 3	S by E		59	100	Fair			
4	Cloudy	S S W 3	SW by W		44	110	S by W 3	S W			51	105	Cloudy	W 1		
	Fairer	S W 4			56	109	Fair	SWb. W 1			64	92	Cloudy	W by S 1	N	
	S W 4				72	108	SmallFro.	W S W 1	W N W		74	82	Cloudy	N by W 2	N	
5	Frost and Fair	S W 3			29.	22	85	Fair	W 2	N by W		80	101	Rain	N 2	
		S 1			29.	94	Cloudy	S 1	S W		73	89	Cloudy	N 2		
6	Rain	S 0		28.	67	104	Cloudy	SWb. W 3	W S W		48	104	Frost	N W o	N	
	Rain				61	105	Fair	W S W 3	W		51	113	Cloudy	N by E 1	N	
	Warm					3. 48	Rain	W by S 3	W		48	91	Fairer	N by W o		
7	Snow	S 5					SmallFro.	W by N 1			76	85	HardFro.	N N W o		
	SmallFro.	S W 2		29.	00	85	Fair						Fair	E 1		
	Fair	SWb. W 3	S by W		08	86	Rain				52	93	Cloudy	S by E o		
	Rain	S by W o	S W		19	85	Violent	W 8	W by N	28.	99	103	Frost	S E 1	S 1	
8	Frost and Fair	S W o	W S W		34	85	Storms	W N W 10	N W	29.	22	101	Cloudy	S E by S 2	S	
		W by S 1	S W		44	88	Cloudy	N W o	N W by N		78	92	Fair	E S E o	N	
					70	88	Fair	S by W 1	N W	30.	00	101	Cloudy	E by N 2		
9	hard Fro. and Fair				72		Cloudy			29.	88	88	Fair			
					73		Milfing	W S W 3	W by N		79	106	Frost and Cloudy	N E o		
10	Same	E by S 1	E S E		82	85	Fair			30.	07	87	Cloudy	N by E o	E	
		S E by E 2			82	89	HoarFro.	S W 2	N N W				SmallRain	E by N o		
					60		somewhat W 3	N			02	88	Rain	S by W 2	S	
11	Cloudy	S W 2	W S W		59	101	Fair			03	109		Cloudy	N by E 1		
		SWb. W 2	W		59	99	Cloudy	W by S 1	N W	29.	98	87	Fairer	E by N o		
					71	102	Fairer	S W 2	W by N		99	107	Fair	S 1		
12	Cloudy	SW by S o			69	103	Fair	N by W 2	N by W		98	96	Cloudy	S by W 1		
		S W 2			66	109	Hazy	S W 3	N W		94	84	Rain	S by W 1		
	Milfing	W by S			59	101	Clou.Rain	5			84	102	Fairer	S by E 1		
13	Rain	SWb. W 3	W		48	93	West 4	W			46	101	Frost	W o		
	Fair	W by S 3	W by N		42	107					34	107	Fair	S by W 1		
	Cloudy				48	93					02		Fair	S by E 1		
14	Fairer	N by W 4	N W		53	94							Frost			
					97	96							Fair			
15	Cloudy	N 1		30.	12	90							Cloudy	SW by S 2	V	
	Day	N by W 1			14	94							Cloudy			
					17	82							Cloudy			
16	Frost	W by S o	N by W		10	81							Cloudy	S W 1	V	
	Cloudy				15	93							Cloudy	S W 2		
17	Foggy	N W b. W o			22	94							Fair	S 2	S	
		N W o			24	100							Hail			
					27	94										
18	Fog	W o			26								smallFro.	S W o		
													Fair	W 2		
19	Fog												Fair	SW by S 3		
													Cloudy	S W 4		
20	hard Fro.	S o			34	77							Cloudy			
	Fair	S by E 1			27	70							Cloudy			
	Foggy				24	76							Rain			
					21	76							Cloudy			
	hard Fro.	S b. E o			18	62							Cloudy			
	Foggy				20	81							Rain			
													Cloudy			
													Fair	S W 3	V	

*Lying of the Clouds, Height of the Mercury in the Barometer, and of the  
Upminster, in Essex, for the First Six Months of the Year 1699.*

March. 6, 12, 9.				April. 6, 12, 9.				May. 6, 12.					
inds.	Clouds.	Barom.	Ther Rain.	Weather.	Winds.	Clouds.	Barom.	Ther Rain.	Weather.	Winds.	Clouds.	Barom.	Ther Rain.
by E 2		29. 26	86 0. 12	Rain and Hail	W by N 1 N 4	N W	29. 37	93	Fair	W by S 1 N W 1	N W	29. 84	112
by W 3		40	82	Same	N N W 3		39	102	Fair	N W 1		138	
		64	80 0. 04	N by E 2	N E		52	98 0. 27	Dry				
Wb. No		72	68	N 2			50	92	Rain	S by W 3		65	113
I		77	96	Cloudy	N E b. N 3	N E by N	63	88	Cloudy	S W b. W 2		47	120 0.
by S 1	N W	78	96	N by E 3	N E by N		67	108	WSW 3			38	133
by W 2	N N E	82	93	Fairer Day	N by E 3	N E	79	93	Showers	W 3		35	106 0.
2		91	98	N E 4			85	90	Fair	S W 1		34	105
2		30.	02	N by E 2			90	107	Rain			11	99 0.
W o	N	11	79	Frost and	N by E 2		91	86	Fair	W by S 2		17	90
by E 1	N by W	15	94	Fair	N E 2		83	82	Thunder	S W 1		31	118
by W o		19	77	Cloudy			75	109	Rain			40	98 0.
N W c		11	65	Cloudy	E by N o	N	69	95	Hoar Fro.	S S W 1		51	92 0.
,	N by E	07	96	E S E 1	S		55	92	Fair	S S W 3		58	121
by E o		29.	95	Cloudy			46	112	Shower			69	107 0.
E 1	S by E	82	82	Cloudy	SE by E 1	S E	37	85	Fair	S by W o		79	98
E by S 2	S E	83	107	Cold	E 2		36		S by E 2	S		81	137
		88	89	Fair			28	98				87	108
S E o	NE by E	97	82	Cloudy	N 2		17	98	Fair	S 1		90	102
by N 2		30.	05	wth some	N by W 1		12	103	S 2			93	143
		11	85	Drops			17	98					
E o		12	80	Cloudy	S o	N W	13	97	Fair and				
NE 2		13	98		S 1	SW	15	115	Warm	E 1		93	115
		14	87	Rain			16	97 0. 52					
by E o	E	10	85	Fair	S by W o	S W	23	93	Same	N E 1		90	92
by E 1		11	103		S 1		31	124	Same	N by E 1		88	147
		08	91	Cloudy			43	104				92	118
by N o		00	86	Rain	N 1		46	99	Same	N by E 3		30.	117
by W 2	S	29.	97		N 3	N N E	48		Same	N 2		10	150
		93	102				52	101 0. 07	Fair	N by W 2		17	105
I		84	93 0. 18	Cloudy	N E 3		59	103 0. 35		N 4		14	132
by W 1		84	106		N E 4		70	113	Fair and			10	108
		78	97				83	99	Dry				
by W 1		63	93 0. 01	Cloudy			90		Same	N by E 3		10	110
by E 1		58	102	Fair	NE				Same	N N E 4		08	137
		69	88	Cloudy			86	97				06	109
V o		80	81	Cloudy	NE by E 3		82	104	Cloudy	N N E 2		05	110
				Fair	E N E 3	E	83	121	Fair	N by E 2		15	
		84	108	Rain			76	108 0. 19	Cloudy	E 1	N N E	01	112
W by S 2	W by S	87	107		NE by N 1	E	64	105 0. 05	Same	E N E 1	N E	29.	99
		30.	02		S W 1	SW	61	118				92	100
W W 1	W S W	04	112				61	101 0. 97	Cloudy	NE by E 2	ENE	88	108
W W 2		02	127	Fairer			58	101	Fair	E N E 3		87	131
		29.	99				50	129	Cloudy			83	110
S 2	S by W	84	108	Cloudy	S by W 1		36	103	Cloudy	E N E 3		76	113
		30.	12	Fair	S 1		21	103	Cloudy	NE by E 3		72	137
S W o		19	78				25	99 0. 21	Fair and			71	113
V 2		22	112	Fair	S W 1		34	85	Hot Day	NE by N 2		69	115
		09	94	Rain	S 1							77	124
W by S 3		29.	88				34	100		N 2	N by E	80	113
W 4		77	115	Fairer	E 12		28	103 0. 02		NE by E 3		83	146
		60	103		W by N 1		42	125		E by S o		86	115
Wb. W 3		47	101 0. 05	Cloudy	W o		65	110		N E 2		86	110
V by S 4	W S W	54	118	Hoar Fro.			72	89		E by S 2		86	143
		48	100	Fair			84	115				83	110
W 3	W by S	38	99	Cloudy	S S W 1	SW	87	110	Cloudy	N N E		80	112

of the Spirits in the Thermometer,  
699.

		June				6, 12, 9.	
Ther Rain		Weather.	Winds.	Clouds.	Barom.	Ther	Rain.
84	112	Very Dry	S W 2	W by S	30. 08	132	
	138	Hot Day			00	138	
65	113	Fair	S W by S	S W by S	29. 91	132	
		Rain				85	134 o. c.
47	120 o. 34					90	123
38	133						
35	106 o. 19						
34	105						
11	99 o. 88						
17	90						
31	118						
40	98 o. 29						o. 01
51	92 o. 08	Fair					
58	121	and					
69	107 o. 01	Dry	W by S 2			72	120
79	98		W by S 3	W by N		78	121
81	137		W 2			82	142
87	108						
90	102						
93	143						
		Great					
		Drought					
93	115						
90	92	Cloudy		N W			
88	147		W by N 2	W by N		67	146 o. 53
92	118	Fair	W o			73	125
00	117		W by S 1			79	126
10	150	Fair					
21	108	Hot					
		Cloudy	E o			87	128
17	105		Hot and			86	138
14	132	Very Dry	E 1	W by S			
10	108					81	136
10	110	Fair	E 1			76	131
08	137		E by S 1	S E by S		71	158
06	109	Rain	S 1	S by E		70	138 o. 04
05	110		S S W 3			60	120
01	112		S by W 4	S W by S		92	154
99	110						
92	100						
88	108						
87	131						
83	110						
76	113						
72	137						
71	113						
69	115						
77	124						
80	113						
83	146						
86	115						
86	110	Some					
86	143	Cloudy	W N W 1			88	148 3. 61
83	110	some	W N W o	NW by N		92	128
80	112	Fair	W o	N N W		95	120

Place this Page. 494.

Philosop

*philosoph. Transact. Numb. 262 Tab. 1.*

*A REGISTER of the Weather, Bearing of the Winds, Flying  
and the Quantity of Rain fallen at U*

Day	July. 6, 12, 9.					August. 6, 12, 9.					S				
	Weather.	Winds.	Clouds.	Barom.	Ther.	Rain	Weather.	Winds.	Clouds.	Barom.	Ther.	Rain	Weather.	Winds.	
1	Milling	NE by E 1	N	30. 00	134		Fair	S by W 4	S S W	29. 32	128		Mist	S W o	
	Hot and	E S E 2		00	150		Rain	S W by S 4		33	145			SW by S	
	Fair			29.	97	122	Cloudy	S W 8		36	130	0. 07	Fair	S o	
2	Fair	E S E 1		96	125		Fair	W by S 1		62	118			S E o	
	and	N E 2		92	150			W SW 1	W by S		70	142			
	Hot			87	124		Cloudy	N N W 1	W S W	56	123		Cloudy	S S E o	
3	Same	E 1		83	131		Fair			72	117			N W 2	
	E 2			82	157		Cloudy	N N W o	W by S	75	105		Same		
				78	129		Fair	E by S 2	W by N	71	147			N E by N 2	
4	Fair	E by N 1		74	120		Rain	E by S o	S W by S	37	125	4. 38	Fair		
	Cloudy			80	135			S W 1	W	31	139		Mist	N o	
	Fair	N E by N 1					Fairer			63	127	0. 46	Fairer	E s	
5	Fair	N 2		85	123					67	125		Mist	E o	
	N 2		N N E	87	150		Showry	S o		59	139			E S E 1	
	Cloudy			90	125			S 2		50	139	0. 08	Fair		
6	Cloudy	N by E 1		90	120		Fairer	S W 4		39			Mist	E o	
		N N E 2		90	143					32	126		Fair	N E 2	
				86	115		Rain	S W 4		30	118	0. 75	Cloudy		
7	Fair	N E by N o	E by N	84	120			S W 3		33	141		Milling	N by E	
	E 1			81	147		Fair			55	117	0. 66	Fair	E N E	
				78	125		Rain	S W 2	W S W	63	116		Cloudy		
8	Fair	E by S 1		79	116			SWb. W 3		66	145				
	W NW 1			82	165		Fairer			69	125		Fair	N i	
	W NWb. No		W by N	90	143					70	119				
9	Same	N by W 1		30. 01	132		Fair	SW by S 3		72	150		Fair	E o	
	NWb. W 1		N W	03	153			S W 3		72	131			E 2	
				04	131		Cloudy						Fair		
10	Same			01	119		Fair	S 1	S S W	65	116		Mist	E o	
	W			29.	88	147		S 3		58	152			E 1	
							Cloudy	N W 1	W by S	43	137		Fair		
11	Hot and	W by S 2		89	140		Fair			49	117		Same	E o	
	Dry	W by N 2	N W	89	162		Rain	W by N 3		57	140			E 1	
				92	143				65	120	0. 44				
12	Sultry	E by N o		97	140		Fair	S S W 3	N W	67	120		Misty	E o	
	Hot	E N E 1		97	178					65	132		Cloudy	somewh. E by N	
	Cloudy			97	143		Rain			61	131	0. 17			
13	Very Hot	E by S o		96	133		Cloudy	S W 2		69	153		Misty	E o	
	and	E S E 1	S by E	97	173		Rain	W by S 2	N W	73	134			lefs	
	Dry			90	142					73	139		Cloudy		
14	Sultry	E 1		87	136		Fair	W S W 2	W by S	72	158				
	Rain and	E by S 2	E by N	88	164			W S W 3		75	122	0. 44	Same	S W 1	
	Thunder			91	139	0. 64	Fair			87	110				
15	Cloudy	N E b. N 2		93	136		Rain	N W 1		98	132		Rain	SW by S S W	
	Fair and	N E 3		90	164					30.	00	111	Cloudy		
	Dry			87	136		Fair	N W b. N 2							
16	Fair	N E 2		87	140								Rain		
	Hot and	E 2	N E	88	172		Fair								
	Dry			89	134										
17	Same	E by N o		91	128		Fair	N N W 1		29.	98	108	Rain		
	E by N 2			93	167					30.	00	111			
				99	131		Cloudy						Rain	S W 1	
18	Cloudy	N by E 3		30.	02	130	Fair	N by W 1		01	110				
	Cool	N 2		06	142			N 2	N N E	03	138				
	Day			06	127		Cloudy	N 2		02	115		Fair	W by N W	
19	N 2						Cloudy	N 2	N N E	29.	97	116	Rain	S S W	
	Same	N 1		29.	01	126		N by E 2		92	142				
				98	138		Cloudy			87	124		Cloudy		
				92	123										
20	Rain	N N W 2		86	115		Cloudy	N N E 1		82	119		Rain	S by SW b	
	Cloudy	N W b. N 2		86	139			NE by N 2		80	140				
	Cool			84	126	06	Cloudy						Rain	Cloudy	

*Flying of the Clouds, Height of the Mercury in the Barometer, and of  
it Upminster, in Essex, for the Last Six Months of the Year 1699*

*and of the Spirits in the Thermometer,*  
1699.

8, 12, 9.		December.			8, 12, 9.	
Barom.	Ther Rain.	Weather	Winds	Clouds.	Barom.	Ther Rain.
9.	29	95	Cloudy	N N W o	29.	71 73
	42	103	Hard Fro.	N W o		71 76
	67	99	Fairer		58	60
	80	106 o. 28	Frost	E by S 3		30 78
	85	116	Cloudy	E 4		12 82
	84	109	Snow		28.	91 83
	53	105	Rain	E 3		61 91
	52	119		E by S 3		52 94
	60	102 o. 36				44 100
	85	96	Cloudy	E S E 3	60	98 o. 18
	92	112	Fair		74	99
	96	111	---Rain	S by E o	29.	61 99
	98	107	Fair	S 2	14	110 o. 13
o.	o1	120	---Rain	S by E 3	28	103
	o3	112	Fair and	S by W		26 107
	o2	100	Rain and	S by E 3	32	115 o. 74
	o2	115	Warm		39	108
9.	97	97	Cloudy and	S 1	50	106
o.	o2	110	Warm		48	112 o. 30
	22	94	Cloudy	S S E 1	37	109
	27	84	Misling	S S E 3	32	116
	27	98	Warm		36	114
	30	101	Rain	S E 3	19	113
	29	100		S S E 3	19	117
	28	107			29	112 o. 38
	22	87	Fair	S by E 1	41	103
	16	80		S by E 2	46	112
	18	103			57	98
	27	92	Fair	S W o	88	92 o. 06
	31	87	Cloudy		95	108
	30	101	---Rain	S by E 2	84	109
	33	96	Cloudy and	S W	78	115 o. 36
	30	94	some Rain		73	108
	30	104	Cloudy	S W 3	54	110 o. 61
	23	103		SW, W 3	57	112
	o9	103	Fair	S W 1	63	104
	o3	110	Rain	W by S 1	51	102 o. 21
9.	85	109			43	108
	76	103 o. 20	Fair	W by N 2	48	98
	70	110		N N W 1	64	100
	36	114	Cloudy		69	103
	53	109	Misling	N N W 1	91	99
	63	115		N 1	30.	07 95
	84	94	Fair		14	101
	87	89	Frost and	N o	27	87
	88	105	Fair	S W 1	25	73
	80	113	Rain		20	88
	86	103	Frost	N W 1	33	90 o. 20
	93	105	Hazy		44	82
	91	85	Fair		35	76
	81	92	Cloudy	W 1	21	81
	87	107	with	N W 1	20	93
	94	94	Thaw		23	91
	94	79	Cloudy	N W o	26	86
	94	97		N W 1	27	102
	91	92				
	85	88				
	85	106				

	Rain	N N W 2		92	123					87	124		Cloudy
20	Cloudy and Cool	N W b. N 2		86	115					82	119		Rain S by SW b.
				86	139					80	140		Cloudy
				86	126	o. 06				76	127		Fair W SW
21	Cloudy	N N W 1		87	126			Cloudy	N N E 1				Fair S by
		N N W 1	N N E	87	155			Fairer	N E by N 2				Cloudy S by
	Fair	S 1		83	134			Fairer	N E 1	E by N			Fair W SW
22	Fair	W by S 1		81	122			Mist	N N E o				Cloudy S by
		N W 1		80	159			Fair	W by N 1				Rain S by
	Cloudy	S E o		78	135			Misty	S by W o	S			Fairer S W
23	Fair Some Drops	S E 1		78	131			Fair	S 2				Rain SW
		S 2		74	172			Misty	S by W o	S			Stormy SWb.
				73	139			Fair	S 2				Fair S W
24	Fair Rain Fair	S W 1		71	128			Rain	S 1	S by W			Rain SWb.
		S W 2	W	67	160			Cloudy	S 1	S by W			Cloudy Rain
				58	129	o. 01		Rain	S by W 3				Rain W by
25	Rain	S S E 1	S	37	129			Cloudy	S W 1	W			Fair W by
		S 1		21				Fair	S W 3				Rain W by
				17	129	I. 89		Rain	S W 1	W			Cloudy N by
26	Fairer Rain Fair	S 1	S W	21	118			Fair	S W 1	W by S			Milling S W
		S S W		24	156			Fair	S by E 2				Fair W N
		S 2		25	129	o. 23		Rain	S 3				Cloudy N by
27	Same	S by W 2	S W by S	11	128			Fair	S W by S 2				Fair E S 1
		S 4	S S W	15	153			Fair	S W by S 3				Rain E by
				18	128	o. 21		Cloudy	S 4	S S W			Fair N by
28	Fair Rain	S 1		24	125			Fair	S W 5	S W by W			Small N by
		S W 4	S S W	27	147			Fair	W by S 5	W N W			Rain E o
				28	129	o. 34		Fair	W S W 1	W			Fair E by
29	Fair Rain Thunder	S by W 3		30	129			Rain	S W o	W			Cloudy E N
		S W by S 4 S W		29	148			Rain	S W 1				Fair E by
				35	124	2. 21		Rain	S S W 2	S W			Cloudy E 3
30	Fairer	SW by S 3 S W		38	122			Fair	S S W 2	S			E by
		S W 4		42	149			Fair	E 1				Fair E by
				46	128			Rain	W 2				Cloudy E 3
31	Rain	S S E 1	S by W	36	126	I. 04		Fair	E 1				E by
	Fair	S 4		34	144			Rain	W 2				Fair E by
				36	127	6. 63							
										73	129	8. 57	

Place this Pag. 494.



91	71	92		Thaw			23	93	
85	88			Cloudy	N W o	N	26	86	
85	106				N W 1		27	102	
86	109			Fair	W NW o		31	94	
84	112	0. 05		Milling	N by W o		36	90	
82	122				N by E 1		40	99	
78	112			Fairer			47	94	0. 03
75	103	0. 45		Milling	N o	N E	50	89	
83					N 1		49	92	
89	85			Cloudy			46	85	0. 07
89	80			Frost	N by W o		40	74	
90	91			Fog	N o		38	88	
92	75			Cloudy	S by E		35	86	
86	71				S W o		21	86	
85	90			Cloudy	SW by S 2		19	94	
83	94				S S W 1		15	91	
76	89			Fairer	S S W 1		14	98	
					SW b. W 1		12	102	
				Rain	S by W 1		29.	98	102
				Cloudy	W o	NW b. W	96	107	0. 08
					W 1	N W	30.	105	
				Fair			10	94	
					W by S 2	N N W	29.	95	86
					N W 2		94	98	
					W by N o	N by W	94	91	
				Fog	W by N o		90	94	
				Milling	W by S o	NW b. W	86	108	
				Rain			80	106	0. 27
					W by N 2		72	96	0. 58
					N W 4		83	100	
				Fair			30.	93	82
					S W 2		01	89	
60	60	0. 59		Cloudy	S W 3	W by S	29.	96	104
				Rain			94	105	0. 24
				Fairer	S W 3		93	110	0. 02
					S W 3		92	112	
				Tot.	1.	93	95	108	5. 77

Philosoph. Transact. Numb. 262 Tab. 2.

A REGISTER of the Weather, Bearing of the Winds, Flying of the Clouds, Height of the Mercury in the Barometer, and of the Spirits in the Thermometer, and the Quantity of Rain fallen at Upminster, in Essex, for the First Six Months of the Year 1699.

January. 8, 12, 9.												February. 7, 12, 9.												March. 6, 12, 9.												April. 6, 12, 9.												May. 6, 12, 9.												June. 6, 12, 9.											
Day	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.	Weather	Winds	Clouds	Barom.	Ther.	Rain.																	
1	Frost	S E. S. S.		29.	77		Fair	S W. I.		29.	43	98	Fair	W by N.	N W.	29.	37	93	Rain	W by S. I.	N W. I.	29.	84	112	Very Dry	S W. 2.	W by S.	30.	08	132																																									
	Fair	S S E. I.			73		Pleasant	W by S. 2.	S W.	29.	53	108	Sleet	N by E. 2.		29.	36	90	Fair	W by S. I.	N W. I.	29.	84	112	Hot Day	S W. by S.	S W. by S.	29.	00	128																																									
	Snow			43			Day	W by S. 0.			77	83		Snow	N by W. 3.		40	82		Same	N N W. 3.		50	92		Fair	S W. by S.						Fair	S W. 2.																																					
2	—Rain	S. 3			21	0.	63	Small Fro.	W S. W. 0.	W N W.		88	79		Fair	N 2.		53	102		Dry	N 2.		63	88		Rain	W 2.						Rain	W 2.																																				
	Warmer and Rain	S. b. E. 3		28.	76	0.	29	Hazy	S by W. 0.			91	95		Sleet	N by E. 2.		29.	26	86	Cloudy	N E. 2.		61	95	0.	14							Thunder	S W. 1.																																				
3	Same	S. 3	S by W.		57	0.	37	Rain	S. 1.			85	103	0.	05							Cloudy	N E. 2.		79	93		Hoar Fro.	S S W. 1.						Hoar Fro.	S S W. 1.																																			
4	Cloudy	S S. W. 3.	S W. by W.		44	110		Fair	S. S. W. 1.	W N W.		74	84									Fair	N E. 2.		83	82		Rain	W 2.						Fair	S W. 2.																																			
	Fairer	S. W. 4.			56	109		Small Fro.	W S. W. 1.			80	101									Fair	N E. 2.		75	109		Thunder	S W. 1.						Thunder	S W. 1.																																			
	S. W. 4.			72	108																Fair	N E. 2.		69	95		Rain	W 2.						Rain	W 2.																																				
5	Frost and Fair	S. W. 3.			29.	22	85														Fair	N E. 2.		84	105	0.	29							Hot Day	S. 1.																																				
	S. 1.				29	94															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
6	—Rain	S. 0.			28.	67	104	0.	75												Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Rain	W 5.			61	105	0.														Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Warm	S. 5.			13.	48															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
7	Small Fro.	S. W. 2.			29.	00	85														Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Fair	S. W. 3.	S by W.		08	86															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Rain	S by W. S. W.			19	85	0.	03													Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
8	Frost and Fair	S. W. 0.	S W. S. W.		34	85															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Fair	S. W. 1.	S W. S. W.		44	88															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
9	hard Fro.				72																Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Fair				73																Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
10	Same	S E. by E. 2.	E S E.		82	85															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
					82	89														Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																					
11	—Rain	S. W. 2.	W S W.		59	101	0.	40													Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Cloudy	S. W. 2.	S W. W. 2.		59	99															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
12	Cloudy	S. W. 2.	W S W.		69	103															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
	Milling	W by S.			66	109															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.																																				
13	Cloudy	S. W. 2.	W S W.		59	101															Fair	N E. 2.		84	105	0.	29							Fair	S. 1.	</																																			

A REGISTER of the Weather, Bearing of the Winds, Flying of the Clouds, Height of the Mercury in the Barometer, and of the Spirits in the Thermometer, and the Quantity of Rain fallen at Upminster, in Essex, for the Last Six Months of the Year 1699.

Day	July.				August.				September				October.				November.				December.			
	Weather	Winds.	Clouds.	Barom.	Ther.	Rain.	Weather	Winds.	Clouds.	Barom.	Ther.	Rain.	Weather	Winds.	Clouds.	Barom.	Ther.	Rain.	Weather	Winds.	Clouds.	Barom.	Ther.	Rain.
1	Milling	NE by E 1	N	30. 00	134		Fair	S by W 4	SSW	29. 32	128		Mist	S W 0	E	29. 97	122		Fairer	W 3	W S W	29. 29	95	
	Hot and	E S E 2	N	30. 00	150		Rain	SW by S 4		33. 145			Cloudy	SW by S 2 S		93. 122			Fair	W by N 4		42. 103		
	Fair	E S E 1		29. 97	122		Cloudy	S W 8		36. 120	0. 07		Fair	S E 0	S by E	77. 112			Cloudy	E 2		93. 123		
2							Fair	W by S 1		62. 118			Cloudy	S E 0		77. 112			Rain	E by N 2		87. 118		
	Fair and	N E 2		60. 125			Cloudy	W SW 1	W by S	70. 142			Fair	E by N 1		80. 122			Fair	W by S		80. 106	0. 28	
	Hot			92. 150			Fair	N NW 1	W SW	56. 123			Cloudy	S E 0		77. 130			Cloudy	E by S 3		30. 78		
3				87. 124			Fair	N NW 1		72. 117			Same	S S E 0	S	67. 122			Fair	Cloudy	E 4	12. 82		
	Same	E 1		83. 131			Fair	N NW 1		75. 105			Fairer	E by S 1	S S W	66. 115	1. 45		Snow	Cloudy		28. 91	83	
	E 2			82. 157			Fair	N NW 1		71. 147			Fairer	S 3		53. 105			Rain	E 3		61. 91	0. 56	
				78. 129			Fair	N NW 1		50. 123			Fairer	S 6	S by W	52. 119			Rain	E by S 3		52. 104		
4	Fair	E by N 1		74. 120			Fair	N NW 1		50. 108			Fairer	S W 0		60. 102	0. 36		Cloudy	E S E 3	S S E	60. 98	0. 18	
	Cloudy			80. 135			Fair	N NW 1		18. 138			Fairer	S W 3	W S W	85. 95			Fair			74. 99		
	Fair	N E by N 1		85. 123			Rain	E by S 0	SW by S	37. 125	4. 38		Mist	N 0	E	17. 96			Rain	S W 3	NNW	98. 107		
5				87. 150			Fairer	S W 1	W	31. 139			Fairer	E 0	E	11. 39			Fair	S W 2	W	30. 120		
	Cloudy			90. 125			Rain	63. 127	0. 46		Mist	E 0	E 1	07. 92			Fair	S S E 0	S	02. 100				
6				90. 120			Fairer	S 2		67. 125			Fairer	E 0	E 1	03. 142			Rain	S S E 1	S	02. 115		
	Cloudy	N by E 1		90. 143			Showry	S 2		59. 139			Fair	E 0	E 1	17. 89			Fair	S 2		28. 103		
	N by N E 2			86. 115			Fairer	50. 139	0. 08		Mist	E 0	E 1	12. 87			Fair	S S E 1	S	02. 115	0. 74			
7				84. 120			Rain	39.			Fair	E 0	E 1	12. 89			Rain	Cloudy	S 1	50. 106	0. 80			
	Fair	N E by N 1	E 1	81. 147			Fairer	S W 4		39.			Misty	N W 0		18. 99			Foggy	Cloudy	and	48. 112	0. 80	
				78. 125			Rain	32. 126			Fair	E 0	N N E	13. 31			Foggy	E 0		16. 80				
8	Fair and	E by S 1	W NW 1	79. 116			Fair	S W 4		30. 118	0. 75		Mist	N E by N 1		21. 123			Foggy	E 1		18. 103		
	Hot	W NW 1	4 by N	82. 165			Rain	S W 3		33. 141			Fair	E 0	N E 2	22. 137			Foggy	N 0		31. 109		
				90. 143			Fair	55. 117	0. 66		Mist	E 0	N N E	22. 121			Foggy	N by E 0		30. 116				
9				84. 120			Fairer	S W 2	W S W	62. 116			Fair	E 0	N E by N 1	18. 116			Foggy	S 2		36. 114		
	Same	N W b W 1	N W	30. 01	122		Rain	66. 145			Fair	E 0	E by N 2	12. 115			Foggy	S S E 1	S by E	19. 113				
				03. 153			Fairer	69. 125			Mist	E by N 0		29. 92			Foggy	S S E 3		19. 117				
10				04. 131			Rain	29. 88	147		Fair	E 0	E 2	29. 92			Foggy	E by E 1		25. 112	0. 38			
	Same	W		29. 88	147		Fair	S W 3		70. 119			Fair	E 0	E 2	80. 104			Foggy	E by E 2		41. 103		
11	Hot and	W by S 2	N W	89. 140			Fair	S 1	SSW	65. 116			Mist	E 0	E 1	80. 99			Foggy	E 1		46. 112		
	Dry	W by N 2		89. 162			Cloudy	S 3		58. 152			Fair	E 0	E 1	80. 120			Foggy	N 0		57. 98		
				92. 143			Rain	43. 137			Mist	E 0	E 1	75. 609	0. 42		Foggy	N by E 0		95. 108				
12	Sultry	E by N 0		97. 140			Fair	N W 1	W by S	49. 117			Fair	E 0	E 1	77. 140			Foggy	S by E 2	S by W	84. 105	0. 36	
	Hot	E N E 1		97. 178			Rain	57. 140			Mist	E 0	E 1	80. 120			Foggy	Cloudy	and	78. 115				
	Cloudy			97. 143			Fair	65. 120	0. 44		Fair	E 0	E 1	75. 609	0. 42		Foggy	Cloudy	some Rain	73. 108				
13	Very Hot	E by S 0		96. 133			Cloudy	S S W 3	N W	67. 120			Misty	E 0	E by N 1 E	91. 114			Foggy	N N E 0	SW by S	54. 110		
	and	E S E 1	S by E	97. 173			Rain	65. 132			Fair	E 0	E 1	89. 102			Foggy	E by N 0	SW by W	57. 112				
	Dry			90. 142			Fair	65. 132			Misty	E 0	E 1	89. 104			Foggy	Cloudy	S W 3	54. 110				
14	Sultry	E 1		87. 136			Rain	61. 131	0. 17		Fair	E 0	E 1	89. 126			Foggy	Cloudy	SW b W 3	57. 112				
	Rain and E by S 2	E by N		88. 164			Fair	S W 2	N W	69. 153			Misty	E 0	E 1	87. 119			Foggy	Fair		63. 104		
	Thunder			91. 139			Fair	73. 134			Fair	E 0	E 1	81. 133			Foggy	Cloudy	W S W 1	51. 102	0. 21			
15	Fair	N E 2	N E 3	93. 135			Fair	W S W 2																